

Claims

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is as follows:

1. A fire resistant carpet backing formulation, comprising:

- a) a polyurethane dispersion;
- b) fire retardant components having at least
  - a) ammonium polyphosphate,
  - b) melamine, and
  - c) a char former;
- c) solvents including water;
- d) filler, pigment and grinding aids; and
- e) surfactants.

2. A fire resistant carpet backing formulation according to claim 1, wherein the fire retardant components further comprises a flame poisoner.

3. A fire resistant carpet backing formulation according to claim 1, wherein the char former is a pentaerythritol.

4. A fire resistant carpet backing formulation according to claim 1, wherein the char former is a polysaccharide.

5. A fire resistant carpet backing formulation according to claim 1, wherein the polyurethane is selected from the group consisting of a polyurethane polyether, a polyurethane polyester and mixtures thereof.

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6. A fire resistant carpet backing formulation according to claim 1, wherein the polyurethane is selected from the group consisting of an aliphatic polyurethane, an aromatic polyurethane and mixtures thereof.

7. A fire resistant carpet backing formulation according to claim 1, wherein the polyurethane dispersion is 18-30% by weight.

8. A fire resistant carpet backing formulation according to claim 1, wherein the fire retardant components of part (b) are 39-61% by weight.

9. A fire resistant carpet backing formulation according to claim 1, wherein the solvents of part (c) are 9-25% by weight.

10. A fire resistant carpet backing formulation according to claim 1, wherein the composition comprises by weight:

<u>Component</u>	<u>% Range</u>
PR-240 main dispersion	18-30
Water	5-15
2-Propanol	3-6
N-Methyl-2-Pyrrolidone	1-4
CT-131 dispersing agent	0.5-1.5
Lorama ECO R1 polysaccharide resin	4-9

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resin

fire retardant components

solvents for permitting flow of the composition

surfactants for the composition

fillers, pigments and anti-settling and grinding aid

12. A fire retardant nylon carpet having a backing component made from the fire resistant carpet backing formulation of claim 1.

13. A fire retardant nylon carpet having a backing component made from the fire resistant carpet backing formulation of claim 10.

14. A fire retardant nylon carpet having a backing component made from the fire resistant carpet backing formulation of claim <sup>16</sup>11.

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15. A fire retardant nylon carpet, comprising:  
a nylon carpet and backing thereon that meets the Airbus ATS  
1000.001/ABD 0031 issue 5 smoke emission and toxic gas  
standards.

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